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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR        | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|---|-------------|-----------------------------|-------------------------|------------------|
| 09/623,945  | 09/12/2000  | Franciscus L.A.J. Kamperman | PHN 17,285              | 2098             |
| 7590  | 03/27/2006  |                             |                         |                  |
| Michael E. Belk<br>Philips Intellectual Property & Standards<br>PO Box 3001<br>Briarcliff Manor, NY 10510 |             |                             | EXAMINER<br>KIM, JUNG W |                  |
|   |             |                             | ART UNIT<br>2132        | PAPER NUMBER     |

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/623,945 | <b>Applicant(s)</b><br>KAMPERMAN ET AL. |  |
|                              | <b>Examiner</b><br>Jung W. Kim       | <b>Art Unit</b><br>2132                 |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 February 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 10-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 10-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office action is in response to the RCE filed on February 18, 2006.
2. Claims 1-4 and 10-29 are pending.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Continued Examination Under 37 CFR 1.114***

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 18, 2006 has been entered.

### ***Response to Arguments***

5. Applicant's arguments with respect to the prior art rejections are moot in view of the new prior art rejections as outlined below.
6. Applicant's arguments with respect to the 101 rejections to claims 10-13 have been considered but are not persuasive. In regard to the material of claims 11-12, Applicant alleges that "there is clearly a data structure defined here that imparts

functionality when employed as a computer component; wherein a data structure is a physical or logical relationship among data elements, designed to support specific data manipulations.” (Remarks, pg. 10) However, the “coded data” of claims 1 and 3 are merely compressed data embedded within it supplemental data. No functional interrelationship is established. In fact, compressed data having embedded supplemental data is a mere arrangement and is characteristic of non-functional descriptive material such as music. Furthermore, assuming arguendo that the coded data is functional descriptive material, a signal does not fall within one of the four statutory classes of section 101: it is not a process because it does not have a series of steps; it has no physical structure, does not itself perform any useful, concrete and tangible result and, thus does not fit within the definition of a machine; a signal is a form of energy so it does not fall within the definition of manufacture as defined by the Supreme Court: the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery. See the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex IV “Computer-related nonstatutory Subject Matter”, (c) Electro-magnetic signals. As of the date of this action, the Interim Guidelines can be found at:

<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>.

***Claim Rejections - 35 USC § 101***

7. Claims 10-13 are rejected under 35 U.S.C. 101 because claims 10 and 12 are drawn to signals per se, not embodied on a computer-readable medium nor on an electromagnetic wave. See MPEP 2106 IV B. 1(a) and (c); *In re Warmerdam*, 31 USPQ2d 1754, 1760 (Fed. Cir. 1994); and *O'Reilly v. Morse*, 56 U.S. 62, 112-114 (1853). In addition, claims 10-13 are drawn to encoded data which is nonfunctional descriptive material, not a process, machine, manufacture, nor composition of matter. See MPEP 2106 IV B. 1(b) and *In re Warmerdam*, 31 USPQ2d 1754, 1760 (Fed. Cir. 1994).

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1, 2, 10, 11, 14, 15, 18, 20, 21, 22 and 25-29 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: partitioning the data into frames, determining a set of parameters for each frame; reducing the data rate of the input signal by applying an algorithm which is controlled by the parameter set whereby encoded data includes the set of parameters or at least data which can be used to derive the parameter set and the data reduced signal. These are essential steps as they define the interrelationship of the parameter and the lossless coded signal. In claim 1, without these steps, it is not clear what is

being altered since the claim does not define the relationship of the parameter with the lossless coded signal.

***Claim Rejections - 35 USC § 102***

10. Claims 1, 2, 10, 11, 14, 15 and 25-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Barbir USPN 6,122,379. (hereinafter Barbir)

As per claim 1, Barbir discloses a method of encoding data, comprising embedding supplemental data into a lossless coded signal by inserting the supplemental data into the data using at least one parameter which is altered in order to embed the supplemental data; and deriving the supplemental data from other data. (col. 7:22-8:53; 9:5-35; arithmetic coder is a lossless encoder; the supplemental data is derived from the RNG; the "induced randomness" is the supplemental data (8:8:5-6); the coding probabilities are the altered parameters)

As per claim 2, Barbir discloses a method of extracting supplemental data of encoded data as defined in claim 1. (col. 8:7-8; 9:37-67)

As per claims 10 and 11, Barbir discloses a data carrier comprising a recorded signal comprising the encoded data of claim 1. (fig. 3, reference no. 170)

As per claims 14 and 15, Barbir discloses an arrangement for performing the method of claims 1 and 2. (fig. 3 and 4)

As per claim 25, Barbir discloses lossless encoding is used to encode the supplemental data. (no data is lost in the randomizing steps)

As per claim 26, Barbir discloses the supplemental data is encoded bit by bit. (fig. 6, reference nos. 300 and 305)

As per claim 27, Barbir discloses before the embedding, partitioning of the data into frames and determining a set of parameters for each frame, wherein the set of frames can be altered to embed the supplemental data. (col. 8:63-65; fig. 8)

As per claim 28, Barbir discloses the encoded data is used to derive the set of parameters. (col. 8:63-65)

As per claim 29, Barbir discloses the parameters is altered to a dedicated value in response to the supplemental data to be encoded. (fig. 6; reference nos. 335, 340, 345, 350, 355 and 360)

Claims 3, 4, 12, 13, 16, 17, 19, 23 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Bloom USPN 6,332,194. (hereinafter Bloom)

As per claim 3, Bloom discloses a method of encoding input data, comprising the steps of:

- a. partitioning the data into frames; determining a set of parameters for each frame; reducing the data rate of the input signal by applying an algorithm which is controlled by the parameter set whereby encoded data includes the set of parameters or at least data which can be used to derive the parameter set and the data rate-reduced signal (col. 6:12-29); and
- b. embedding supplemental data into encoded data, the parameter set is affected by the supplemental data. (6:31-61; fig. 3, reference nos 306, 308, and 310 and related text)

As per claim 4, Bloom further discloses a method of extracting information which is embedded in the parameter set of an encoded signal as defined in claim 3. (col. 4:22-24)

As per claims 12 and 13, Bloom discloses a data carrier comprising a recorded signal comprising the encoded data of claim 3. (col. 4:6-28)

As per claims 16 and 17, Bloom discloses an arrangement for performing the methods of claims 3 and 4. (col. 4:6-28)

As per claims 19, 23 and 24, Bloom discloses the arrangement for performing the method of claims 3 and 4 is a disc player for audio and audio-visual media. (4:6-28)

***Claim Rejections - 35 USC § 103***

Claims 18 and 20-22 are rejected under 35 USC 103(a) as being unpatentable over Barbir in view of by Bloom.

As per claims 18 and 20-22, the rejections of claims 1, 2, 14 and 15 are incorporated herein. (supra) Barbir does not expressly disclose the arrangement is a playback machine, specifically a disc player for audio and audio-visual media. Bloom discloses a method for watermark insertion into a compressed data wherein the arrangements to embed the watermark and the arrangement to extract the watermark are a disc player for audio and audio-visual media. (4:6-28) Watermark insertion and detection by a disc player for audio-visual media ensures restricted use of the protected data. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made for the arrangements of the methods of claims 1 and 2 to be a playback machine, specifically a disc player for audio and audio-visual media. One would be motivated to incorporate the arrangements into a disc player to ensure restricted use of the protected audio-visual data. (Bloom, ibid) The aforementioned cover the limitations of claims 18 and 20-22.

***Communications Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is 571-272-3804. The examiner can normally be reached on M-F 9:00-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



March 21, 2006

Jung W Kim  
Examiner  
Art Unit 2132



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